



Friends of Science in Medicine

Newsletter 29— 06 August 2021

“Never was so much owed by so many to so few”

On 24th May 2021, in his [opening remarks](#) at the World Health Organization’s main annual assembly, Director-General Tedros Ghebreyesus paid tribute to the millions of health care professionals who, for the past 18 months “have stood in the breach between life and death”. WHO had estimated that, worldwide, at “least 115,000 health and care workers have paid the ultimate price in the service of others.”



Tedros Ghebreyesus

The situation remains precarious. The number of COVID-19 deaths [continues to climb](#) – more than 4 million to date. More than 200,000 million people are known to be infected. “We must be very clear: the pandemic is not over, and it will not be over until and unless transmission is controlled in every last country” said Ghebreyesus.

COVID-19’s timeline has been dynamic. On 9th January 2020, the WHO announced a mysterious Coronavirus-related pneumonia in Wuhan. Three weeks later, they issued a Global Health Emergency. On 11th February 2020, [WHO named this new disease ‘COVID-19’](#), declaring it a pandemic on 11th March, by which time there were “alarming levels of spread and severity.”

While vaccination began in earnest in December 2020, [fewer than 14%](#) of the world population are now fully vaccinated. By May 2021, more than 1.6 billion doses of vaccines had been administered globally. Just under 1.1 billion of those were administered in the US, EU, UK, Israel, Canada and China.

There are many “stories of courage, heartbreak, desperation, struggle and triumph” he said, while praising health care workers who continue to save countless lives, and who are fighting for others and “who despite their best efforts, slipped away.”

[“Never was so much owed by so many to so few”](#) broadcast Winston Churchill on 20th August 1940 in describing the success of the Battle of Britain – the first significant defeat for the hitherto unstoppable German *Luftwaffe*.

These words should be used again to describe the continued efforts of the dedicated scientists, researchers, clinical trial volunteers and health care workers who continue to fight this global disease.



Winston Churchill



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NIIM Human Research Ethics Committee and NHMRC oversight

FSM wrote to the NHMRC in response to an article about a clinical trial of a blood test that looks for circulating tumour cells, in 'The Age' newspaper on 6th July 2020.

We were concerned that the National Institute of Integrative Medicine (NIIM) states that its Human Research Ethics Committee (HREC) has been registered by the NHMRC yet its composition did not appear to meet the requirements of NHMRC's National Statement on Ethical Conduct in Human Research. For example, it does not have equal numbers of men and women, it does not have at least two lay people and it does not have at least two people with current relevant research experience. In addition, the Deputy Chair, Isaac Golden PhD, the member with knowledge of, and current experience in, the areas of research regularly considered by the HREC, is a homeopath and advocate of homeopathic vaccination, which puts him at odds with the NHMRC statement on homeopathy.

The NHMRC responded that NIIM is a 'registered', not 'certified' institution and the NHMRC requires no accountability or assessment from the NIIM HREC, apart from self-reporting (which had been done). The NHMRC can raise the suitability and/or qualifications of members of a 'certified' HREC, but not a 'registered' one. However, the NHMRC said they would raise the issue of failing to reach the minimum HREC membership numbers with NIIM.

According to Professor David Vaux, Deputy Director of the Walter and Eliza Hall Institute:

"From the NIIM's current website, its HREC is not in compliance with the National Statement on Ethical Conduct in Human Research because it lacks gender balance, and has insufficient members with research experience, and insufficient independent lay person representation. The only recorded capture of its previous HREC composition (Wayback machine 13 8 2020) shows that at that time it also failed to comply.



David Vaux

In response to our queries, the NHMRC has indicated that it will register an HREC if it returns the application form, regardless of whether the form indicates that the HREC complies with the National Statement. The NHMRC says that the responsibility for compliance of the HREC with the National Statement rests with the institution, in this case the NIIM.

Because the NHMRC and the Australian Research Integrity Committee (AHEC) will register HRECs without reading the submitted application forms, and even if they did, they have no regulatory powers, there is nothing an institution can request that an HREC cannot approve. For example, an HREC could approve clinical research without requiring patients give informed consent, or research that would be in breach of the Nuremberg Code and the Declaration of Helsinki.

Because the NIIM's HREC is responsible for approving research by the NIIM, and the NIIM is responsible for what is done by the HREC, COI's will inevitably arise, and there are no independent mechanisms for oversight, no accountability, and no processes to ensure compliance with the National Statement.

The NHMRC says it will now raise the issue of failing to reach the minimum HREC membership numbers with NIIM, but why have they not done so already (or in August 2020), and will they now withdraw registration due to non-compliance?

In my opinion, this affair reveals a very major flaw in human research governance in Australia, and it must be corrected urgently."



The TGA—removing the need for scientific evidence



Winter produces a flood of complementary medicine advertisements claiming that their products, for instance, [Fusion Astra 8 Immune tonic](#) and [Fusion Zinc Advanced](#), “improve immune defences and reduce the frequency of common colds”. The former claims traditional use; the latter invokes science.

Fusion Astra 8 “contains eight Chinese herbs, including astragalus, which is traditionally taken as an immune tonic to enhance immunity in both traditional Chinese medicine (TCM) and Western herbal medicine”. The [TGA accepts claims of ‘traditional evidence’](#) and/or scientific evidence to authorise complementary medicines. In 2018, the TGA introduced the [Therapeutic Goods \(Permissible Indications\) Determination](#) to limit ‘advertising creativity’. However, the industry was allowed to create the list. This resulted in 86% of 1,021 indications being justified by ‘traditional’ rather than ‘scientific’ evidence. This effectively removed the need for a scientific evidence base.

The TGA Evidence Guidelines say, “If you are aware that there is conflicting evidence between the history of traditional use and contemporary scientific evidence for your medicine, then it is advisable to include a statement to this effect in any labelling and advertising associated with the medicine, for example: ‘this traditional use is not supported by scientific evidence’”.

So, does their scientific evidence support astragalus use – alone or in combination with other TCM-approved herbs? [Astragalus species extracts have been studied in-vitro](#). Concentrations of specific



interleukins with immunostimulatory properties have been found. However, *clinical* studies for viral infection in healthy people are lacking. This population is the target market for winter “immune boosters”. In addition, classical Chinese herbal prescriptions usually include between five and ten botanicals. The lack of [standardisation of the ingredients or extracts](#) casts doubt on the identity of the formulae used and the reproducibility of results.

Consumers need to appreciate the difference between “traditional beliefs” and “scientific” evidence. The RACGP, Choice, FSM and others have called for an [educational statement](#) on packs and in



promotional material such as, “This product is based on traditional beliefs and not modern scientific evidence”? This statement was opposed by industry, the TGA and the Government. Regardless, it is still needed.



Fusion Zinc Advance, “is a high strength Zinc supplement with 1000 mg of Vitamin C to support immune health and function”. Because the sponsor has not invoked traditional use, they are making a claim based on scientific evidence. Is this supported? Zinc is essential for the growth, development, and maintenance of immune function. [Zinc deficiency](#) results in a compromised immune system and other problems. This underscores the importance of zinc, particularly in underdeveloped countries where the risk of infection is heightened because of poor sanitation, public health, and vaccination strategies.



But what about Australia? [Fusion Health claims](#), “1 in 3 men over the age of 19 aren’t getting enough zinc in their diet” referencing a [2011-2013 Australian Bureau of Statistics food survey](#). The Bureau’s figures of low zinc levels due to dietary inadequacy in men were estimated by survey and modelling, using a value known as “[Estimated Average Requirements](#)” (EAR) value. The sample were questioned verbally about how much each food-type they eat. This was then compared to the EAR, and percentage adequacy of each mineral and vitamin was calculated. There were no assays of plasma zinc levels or other laboratory markers of zinc status. Regardless, most people, [including vegetarians](#), will get enough zinc by eating a [healthy, balanced diet](#).

The complementary medicine industry often extrapolates from a nutrient’s important metabolic role to imply that supplements will benefit healthy people. This ignores the fact that the absorption of minerals and vitamins is balanced with requirements, and that ‘excess’ vitamins and minerals (over and above a regular, balanced Australian diet), will be excreted, not utilised nor stored.



What about the 1000 mg of Vitamin C in Fusion Zinc Advance? A 2013 [Cochrane Review](#) of 29 trials involving 11,306 participants found that vitamin C supplementation failed to reduce the incidence of colds. They concluded that routine vitamin C supplementation was not justified.

Recommendation: Eating a healthy, well-balanced diet (and keeping your immunisations up to date) improves immune defences; for most people, supplements are not required.

By Dr Mark Belkin PhD (RMIT), BAppSc (LabMed) and Dr Ken Harvey MB BS, FRCPA, AM

Congratulations!

Distinguished Service Medal



[The Royal Australian and New Zealand College of Obstetricians and Gynaecologists \(RANZCOG\)](#) bestows honours and awards on individuals who have made outstanding contributions to the work of the College and/or women’s health more broadly.

This year, FSM co-founder Professor MacLennan AO was awarded the RANZCOG’s Distinguished Service Medal “*For significant contributions to women’s health and in particular his ground-breaking research into the causes of cerebral palsy and the contributions this work has had on the practice of Obstetrics.*”

FSM congratulates Professor MacLennan on this outstanding achievement.



AHPRA and TEQSA—are they protecting the public?

In mid-2010, Australia introduced the National Registration and Accreditation Scheme to regulate health practitioners. The Australian Health Practitioners Regulation Agency (AHPRA) was set up to assist individual profession's National Boards. The 'National Law' governs the operations of the Boards and AHPRA.

In 2011, the Tertiary Education Quality Standards Agency (TEQSA) was set up to protect students' interests and the reputation of Australia's higher education sector.

Does either [protect the public?](#)

The [“Guidelines for advertising a regulated health service”](#), jointly developed by the National Boards, refers to claims for health services. It covers statements on television, radio, the Internet (including social media), in newspapers and office signs. This year, AHPRA [“received more notifications than ever - 10,236 notifications”](#), a greater than 9.6% increase from the previous year.

In most Alternative Medicine (AltMed) clinics you might be told that they can treat a wide range of diseases and disorders. Some orthodox registrants use the same tricks to evade advertising restrictions, “They can't tell you what ingredients are in the pill but, hey, you can telephone them and hear all about it: [Why aren't the ingredients advertised on your website? – The Hairy Pill](#)”.

Concerns about unlawful advertising are managed by AHPRA in two ways. Serious-risk complaints about advertising by registered practitioners, as well as complaints about advertising by corporate entities and unregistered persons, are managed by the Criminal Offences Unit.

Low-to-moderate-risk advertising offences are managed under the advertising compliance and enforcement strategy.

Bearing in mind the number of registered practitioners in each profession, serious-risk complaints are more prevalent against medical practitioners and dentists.

Removing false and misleading advertising claims is only part of protecting the public. Everyone from new parents to the elderly is targeted with misinformation and offered potentially harmful placebo interventions such as spinal manipulation, ‘craniosacral therapy’, ‘bioresonance’, unproven Chinese medicines or acupuncture. AHPRA has no control over the claims made *within* clinics.

Courses endorsed by the National Boards are [accredited and approved](#) as qualifications under the National Law. [An accreditation standard](#) is used to assess whether a program of study, and the relevant education provider, provide knowledge, skills and professional attributes to practise the profession. Evidence-base medicine is not mandatory. Inclusion of unproven and disproven interventions is common. Registrants must undertake Continuing Professional Development (CPD). However, AHPRA has no control of the contents. These often focus on [growing client numbers and selling goods](#) rather than on evidence-based education.

TEQSA regulates higher education. Although it has a [“risk-reflective approach to quality assurance that supports diversity, innovation and excellence”](#), there is no requirement for robust research within their AltMed degrees.

All education should be based on high-quality, independent evidence. According to TEQSA, the “Threshold Standards do not contain any stipulations about the specific disciplinary content of higher education courses”. There is *nothing* in the standards documentation for either AHPRA nor TEQSA requiring education to be based on scientific knowledge. There is also [no independent evidence base](#) enabling patients to make informed decisions about interventions.

A decade after their introduction, AHPRA and TEQSA still lack the authority to influence course content. This results in poor quality education. These agencies should be protecting us. Instead, with their inability to address education, we are not safe.

Loretta Marron OAM, CEO FSM



The Stem Cell Revolution

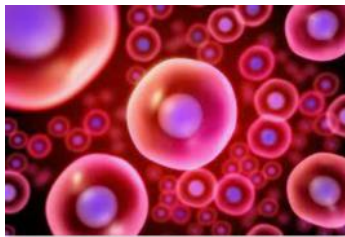
At the end of the 20th century, stem cells took hold of our imagination. We began to dream of their healing powers. Since then, we've been told time and time again that the era of regenerative medicine is upon us. Stem cells will soon cure just about every ailment under the sun. Think of a disease starting with A (AIDS, Alzheimer's, arthritis, autism) and then work your way through the alphabet. You name it, stem cells will fix it. Even COVID-19. And if you need a new kidney or liver or windpipe or heart, you'll be able to grow them with stem cells. Not today, perhaps, but tomorrow, or the next day, or the day after that. Twenty years on and we're still waiting for the stem cell revolution.



Carl Power and John Rasko

An ever-widening gap has opened up between what we expect from stem cells and what they actually deliver. Between hope and reality. Of course, those who sell unproven stem cell therapies will tell you otherwise. They'll tell you that the revolution has come. Magically, overnight, without all the fuss and bother and scientific labour that would actually be needed to make it happen. As if we'd all woken up to find that our cars can fly and Mars is a popular holiday destination.

Stem cell clinics aren't waiting for their treatments to be tested on mice and dogs and monkeys. They aren't waiting for rigorous clinical trials. Why go to all that trouble, wasting years and millions of dollars, when you can cut to the chase, dole out the stem cells, and rake in the cash? Let the market decide if they're any good!



Their business is fantasy, but a fantasy rooted in the very real and very urgent needs of patients who are desperate for a stem cell cure and unable to wait for mainstream medicine to provide it. The fantasy also rests on solid economic foundations. Not just the law of supply and demand, but also that of demand and supply. Simply put, if there are people willing to pay for something – even the impossible – there will be people ready to sell it to them. Unproven stem cell treatments have proved extremely lucrative. It's a growth industry worth about US\$2 billion a year worldwide.

One of us – John Rasko – has kept a keen eye on this burgeoning business. In 2016, he and his colleagues scoured the internet for clinics selling stem cells direct to consumers. What they found shocked them. Most clinics weren't in developing countries but in amongst their customer base. By far, the greatest number were in the USA! It had five times more than India, its biggest rival. Even more surprising, the country with the highest number *per capita* was Australia!

The situation in Australia improved dramatically in 2019 when our Therapeutic Goods Administration finally cracked down on stem cell clinics. We've cleaned up our act, but elsewhere in the world the problem remains massive.



Prof John Rasko AO, MAICD FFSc(RCPA) FRCPA FRACP FAHMS and Dr Carl Power PhD MSc BSc

Text based on chapter 10 of John Rasko and Carl Power, [*Flesh Made New: The Unnatural History and Broken Promise of Stem Cells*](#) (Sydney: ABC Books, 2021)



Local councils and water fluoridation



Michael Foley

Community water fluoridation (CWF) is a contentious issue for some, and we live in a wonderful free country where we value the rights of all to 'have their say'. So, who should decide whether a community fluoridates its drinking water to improve public dental health? This topic has arisen recently in the beautiful Port Macquarie-Hastings region of northern NSW, where drinking water has been fluoridated for many years. In its wisdom, the local council voted 4-3 to [conduct a \\$90,000 poll](#) on CWF in conjunction with the 4 Sept council elections. Deputy Mayor Lisa Intemann is a long-time CWF opponent, and the question: "Yes or no: would you prefer that council stop adding fluoride (hydrofluorosilicic acid) to the public water supply?" appears aimed at maximising the anti-fluoride vote. It ignores the substantial dental health benefits of CWF, the savings in dental treatment costs for individuals and governments, and the endorsements of CWF by every reputable health and scientific authority in Australia and every federal, state and territory government.

Under the Australian constitution, health is a state government responsibility, although NSW and Qld have passed on responsibility for CWF to local governments. Port Macquarie-Hastings Council is therefore within its legal right to conduct a fluoridation poll and set its own question. Plebiscites are also valuable tools for gauging *vox populi*. Notable examples in Australia include the 1977 national anthem plebiscite and the 2017 same-sex marriage survey. Many Australians felt very strongly about these issues, and valid choices could be made without being a musician or marriage celebrant. But do we also hold a plebiscite on medical research funding? Or the federal budget deficit? Or Australia's next submarine fleet? Of course not.

Decisions on highly technical issues are best made by federal and state governments, after seeking expert advice. Plebiscites on these issues would be a waste of time and money and produce a meaningless response. A 1968 Tasmanian Royal Commission into the Fluoridation of Public Water Supplies agreed, stressing that CWF must be "...a matter for the decision of Parliament. A referendum as a means of arriving at this decision is not only without constitutional warrant but is highly unsuitable as well. To refer the matter to a forum both technically incompetent and constitutionally incapable constitute an abrogation of Parliament's responsibility." Better public health should never be a residential lottery.

Our cousins across the ditch have traditionally also allowed local councils to decide on fluoridation, illogically resulting in Auckland and Wellington with CWF, but Christchurch and many other communities without. The current New Zealand government recognises the public health anomaly and plans to transfer CWF decision-making to the Director-General of Health. Over to you, NSW and Qld.



The irony of the Port Macquarie-Hastings poll is that under current NSW legislation, even if most residents vote against CWF the council cannot discontinue the practice without state government approval. The Minister for Local Government has already stated that this is highly unlikely. Port Macquarie-Hastings residents may want to consider their Council's foolishness when voting at the 4th December elections.

Michael Foley, Chair, The Australian Dental Association's (ADA) Oral Health Committee



FSM Executives in the Media

Coronavirus, vaccines and the Therapeutic Goods Administration are some of the topics the FSM Executive was interviewed about or published about since the last newsletter.

- * [The NSW 'lockdown' that isn't while putting business before people.](#)
- * [The chaotic incompetence of our roll out of the COVID vaccines? Part 1](#)
- * [Can we have confidence in the Therapeutic Goods Administration?](#)
- * [Enough with the hidden persuaders – we need a national integrity commission now](#)
- * [My fellow over-60s, you need to be vaccinated. Yesterday. Your vaccine is available, abundant ... and safe](#)
- * [Meet the Queensland dad who almost died from mould](#)
- * [Keeping the standards high](#)
- * [TGA does "terrible job" on CM's, says critics](#)
- * [TGA lists first AUST L\(A\) herbal product, but where's the evidence?](#)
- * [The looming medical apartheid](#)
- * [COVID vaccine incentives: Australian doctors now allowed to offer cash, prizes and alternative medicines](#)
- * [Get one vaccine and receive your next one free!](#)
- * [How faulty PPE unmasked our health watchdog's approvals process](#)
- * [A moral responsibility to get Australian's home](#)
- * [Poor leadership, irresponsible media and a clever virus](#)

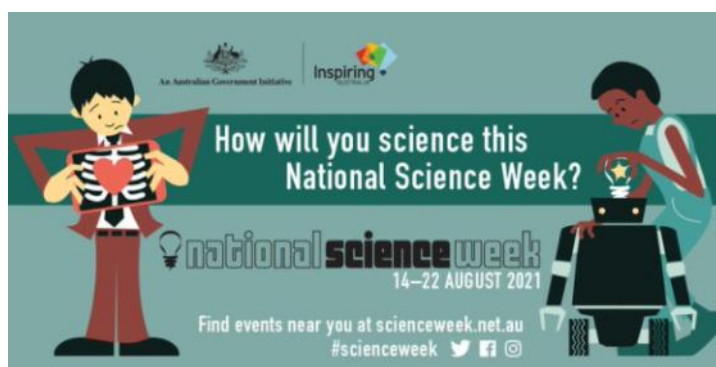
SKEPTICON 2021 – REGISTER YOUR INTEREST NOW



[Registrations of interest](#) are now open for Skepticon, the 2021 Australian Skeptics Annual National Convention which this year will be held on November 20-21.

It will be a joint event, held by Australian Skeptics in Sydney, Australia, and the NZ Skeptics in Wellington, New Zealand; with face-to-face and online participation available (COVID willing).

Details of the speakers and ticket prices will be available soon, but in the meantime please register your interest at www.skepticon.org.au so you can receive the latest info.



For more information on National Science Week:

<https://www.scienceweek.net.au/latest-news/>



The impact of personal pseudoscience beliefs in the pursuit for non-evidence health care

INTRODUCTION: Pseudoscientific beliefs are widespread in society and are influenced by several factors. The endorsement of alternative medicine treatments, mostly not evidence based, has relevant negative impacts on health care public policies. The understanding of the impact of pseudoscientific beliefs on the endorsement of alternative treatments is a relevant issue in this matter.

OBJECTIVES: We aim at describing scientific and pseudoscientific beliefs and its impact on the endorsement of evidence and non-evidence-based health care treatments.

METHOD: We conducted a survey in a representative sample of 2,091 participants from all Brazil geopolitical regions and 130 different cities. We measured knowledge about health treatments, including alternative medicine treatments, and trust in each treatment, if treatment had been previously sought, if treatments should be funded by the public health system, among other issues. We also measured beliefs in scientific and pseudoscientific claims using a 5-point Likert agreement scale with 9 items with two factors: Scientific beliefs and Pseudoscientific beliefs.

RESULTS: Our results show that most part of the sample recognizes conventional medicine as a treatment (64.5%), but also alternative medicine practices such as homeopathy (69.2%), and spiritual therapy (68.6%). We found that support of all alternative medicine treatments is significantly predicted by pseudoscientific beliefs (beta's regression coefficients ranging from .13 to .38 all $p < .01$). On the other hand, the support of evidence-based medicine is rooted in scientific beliefs (beta = .12, $p < .01$).

CONCLUSION: Our results have shown a high rate of prevalence of pseudoscientific beliefs related to non-evidence-based health treatments. It also shows favorable evidence that general pseudoscientific beliefs are relevant to assess the endorsement of non-evidence-based healthcare.

Natália Pasternak Taschner, Carlos Orsi, Paulo Almeida and Ronaldo Pilati



Natalia Pasternak

Conflicts of Interests in Self-Regulating Health Professions Regulators



Andrea McGregor

Congratulations to Canadian Andrea McGregor, whose article on conflicts of interest in health profession regulators was published by her school's law journal. The article included a case study discussion regarding her province's chiropractic regulator and the regulator's handling of advertising complaints. Andrea's article will contribute to discussions around current regulatory issues and reforms, whether in Canada or abroad.

The abstract and article can be accessed for free here:

<https://digitalcommons.schulichlaw.dal.ca/dlj/vol44/iss1/8/>

Congratulations!

Both Andrea McGregor (Canada) and Natalia Pasternak (Brazil) have been featured in previous FSM Newsletter front pages 'The Power of One'.



Veterinary Medicine and CAM

‘Barking Mad’

Animal behaviour research, particularly into our loyal companions, dogs, has made significant advances in understanding what makes animals ‘tick’. We know a great deal about dog training and how to use dogs for everything from rounding up sheep (saving millions of dollars annually) to sniffing out prostate cancer (now being trialled for COVID-19).



But what of ‘difficult’ dogs, predominantly urban – aggressive, barking incessantly, tearing up lounges or urinating on rugs – making life miserable for their owners? Many books and websites suggest that problems are common or commonly affecting their owners – even more so with the rise of the ‘fur baby’, moved from an outdoor kennel to the owner’s bed. Not surprisingly, [Australia Talks](#) found that a third of us would rather spend time with our pets than people. (Who wouldn’t when people can be more difficult than our dog?)

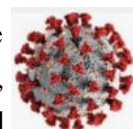
Veterinary behaviourists describe ‘difficult’ dogs – with separation anxiety, noise and fireworks phobias, storm phobias, panic attacks, anxiety, dementia and obsessive-compulsive disorders – as having a ‘mental illness’. 20% of all pets are estimated as having some type at some time in their lives. Together with behaviour modification, psychotropic medications are used to improve their (and their owner’s) quality of life and, importantly, to prevent their being euthanased or surrendered to a pound. Behaviour problems are a leading cause of abandonment.

The global surge in pet adoptions in the early phase of the pandemic has not been sustained. There is a concern that COVID puppies will be abandoned or suffer from separation anxiety when their owners return to work. (Ho .J et al. <https://doi.org/10.3389/fvets.2021.647308>).

The pharmacopoeia includes tricyclic antidepressants (eg clomipramine) for anxiety and compulsive disorders; short acting clonidine, gabapentin and trazadone; selective serotonin-reuptake inhibitors (eg fluoxetine) for anxiety, aggression and compulsive disorders; monoamine oxidase inhibitors (eg selegiline) for ‘canine cognitive dysfunction’ and benzodiazepines for fear-related behaviour. Not all are licensed for use in animals, but can be used ‘off label’. Side effects, increasing aggression, are a concern with benzodiazepines. There is little evidence for the use of gabapentin for pain, but it has a sedative effect. There is no evidence for non-medicinal therapies such as pheromones. Sometimes a ‘cocktail’ of medications is used. We must be concerned about the side-effects of these medications, and not medicalise normal behaviours.

Not all of the psychotropic medications have good evidence of efficacy, especially in combination. Their use might be based on anecdotes or the expert’s experience. There is no doubt an element of commission bias (the urge to do something) to prevent dog owners requesting euthanasia or abandoning the dog. We must also ensure that the dog, not the owner, is taking the medication!

The increasing use of an array of behaviour-modifying drugs in veterinary medicine is an interesting phenomenon, as is the use of the term ‘mental illness’. Clearly, more research needs to be undertaken on the evidence-base for many of these medications, especially in combination. The increase in dog ownership as a result of COVID-19 and the predicted increase in separation anxiety as owners return to work might challenge dog owners and veterinarians to find ways to give the dog (and owner) a best-evidence-based good quality of life.



Tanya Stephens BVSc (USyd) MSc IAWEL (Edin) MANZCVS (Animal Welfare) FRCVS.



A SPECIAL REPORT FROM EDZARD ERNST

Acupuncture for acute low back pain: a new systematic review

Acupuncture has been widely used for acute low back pain (LBP), yet there remains continued controversy regarding its efficacy. Therefore, this [systematic review](#) aimed at evaluating the evidence.

English and Chinese databases were searched for randomized controlled trials (RCTs) of acupuncture for acute LBP published up to May 2020. Data on the outcomes of pain intensity, functional status, and analgesic use were extracted. The meta-analysis was performed using the Cochrane Collaboration's RevMan 5.3, and pooled data were expressed as mean differences (MD) with 95% confidence intervals (CIs).



Edzard Ernst



Of the 13 eligible RCTs identified, 9 were from China, one each from Brazil, the United Kingdom, Australia, and South Korea. Four studies were published in English, and 9 were published in Chinese. The 13 RCTs (involving 707 patients) provided moderate-quality evidence that acupuncture has a statistically significant association with improvements in VAS (visual analog scale) score [MD: -1.75 (95% CI: -2.39, -1.12)]. Two studies indicated that acupuncture did not influence the RMDQ (Roland-Morris Disability Questionnaire) scores more than the control treatment [MD: -2.34 (95% CI: -5.34, 0.67)]. Three studies suggested that acupuncture influenced the ODI (Oswestry Disability Index) scores more than the control treatment [MD: -12.84 (95% CI: -23.94, -1.74)]. Two studies suggested that acupuncture influenced the number of pills more than the control treatment [MD: -3.19 (95% CI: -3.45, -2.92)]. Merely 2 RCTs were sham-controlled and only 4 of the 13 RCTs mentioned adverse effects.

The authors concluded that the acupuncture treatment of acute LBP was associated with modest improvements in the VAS score, ODI score, and the number of pills, but not the RMDQ score. Our findings should be considered with caution due to the low power original studies. High-quality trials are needed to assess further the role of acupuncture in the treatment of acute LBP.

I do appreciate the authors' call for caution in interpreting the findings. Yet, I feel that much more caution than the authors advise is needed here:

- * Most studies are from China, and we have often seen that [these trials cannot be trusted](#).
- * Only 2 RCTs are sham-controlled which means that most studies failed to control for placebo effects.
- * Most studies do not mention adverse effects, confirming the unethically low standards of these investigations.

I am afraid that this new review does not inspire me with confidence that acupuncture is an effective therapy for acute LBP.



RECENT RELEVANT PUBLICATIONS BY FRIENDS

Edzard Ernst

- * [Designing a decent trial of low back pain](#)
- * [Acupuncture for Supportive Breast Cancer Care: A New Systematic Review](#)
- * ['Chiro-wars' in British Columbia](#)
- * [Very bad news for homeopathy in Germany](#)

Gabrielle Babbington

- * [The Kryptonite Hypothesis](#)

Alan Levinovitz

- * [Debate: Can We Call It The "Chinese Virus"?](#)

Jonathan Jarry

- * [Blog - The exaggerated villainy of the Epstein-Barr virus](#)
- * [The emerging science of careful whispers](#)

Timothy Caulfield

- * [Chiropractors aren't qualified to give COVID-19 vaccine advice, health experts warn](#)
- * [I've received death threats. I've been sued. I've been lied about. Here's why I'm committed to debunking misinformation](#)
- * [Lies, damned lies, and Facebook.](#)

Forbes: Steven Salzberg

- * [De-platform The Disinformation Dozen](#)

Science-based Medicine

- * Steven Novella [When Will We Need a COVID Vaccine Booster?](#)
- * Harriet Hall [Misogyny in Medicine](#)
- * David Gorski [We are not "losing the war on cancer" \(belated 2021 edition\)](#)
- * Clay Jones [Summer is Here, and Infant Swimming Programs are Still Unproven](#)
- * Scott Gavura [Closing the vaccine hesitancy gap](#)
- * Jann Bellamy [Sen. Rubio's proposed tax shelters for quackery](#)

Respectful Insolence (David Gorski)

- * [Ivermectin is the new hydroxychloroquine for COVID-19](#)

Skeptical Raptor

- * [HPV vaccine myth debunking – all the science facts fit to print](#)

Skeptical Inquirer

- * [Illness, Healing, and Other Terms That Can Be Confusing](#)

The Question of Science Institute (IQC)

- * [In search of vaccines against infodemia](#)



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New Books

Fake Medicine

Exposing the wellness crazes, cons and quacks costing us our health



Brad McKay

Dr Brad McKay, GP and experienced science communicator, investigates the myths, scams and fads of modern health and wellbeing.

We all want to live healthier, happier and longer lives, but too many of us are charmed by charlatans, misled by marketing or scammed by sciencey-sounding salespeople.

This book is an essential tool for debunking pseudoscience and protecting you and your loved ones from the health scams that surround us. Protect your mind, body and wallet by fighting fake medicine.



Flesh Made New: The Unnatural History and Broken Promise of Stem Cells

Exposing the burgeoning business of stem cell treatments

By John Rasko and Carl Power

Unproven stem cell treatments are extremely lucrative. It's a growth industry worth about US\$2 billion a year worldwide. It is a burgeoning business.

Most clinics are not in developing countries. By far, the greatest number are in the USA! It has five times more than India, its biggest rival. Even more surprising, the country with the highest number *per capita* was Australia!

The situation in Australia improved dramatically in 2019 when our Therapeutic Goods Administration finally cracked down on stem cell clinics. Australia has cleaned up their act, but elsewhere in the world the problem remains massive.



Carl Power and John Rasko